

## CLAIM AMENDMENTS

1. (currently amended) A method for processing blocks of audio information arranged in frames, each block having content representing a respective time interval of audio information, wherein the method comprises:

(a) receiving an input signal conveying the blocks of audio information;

(b) obtaining two or more measures of quality such that:

(1) each set in a plurality of sets of groups of the blocks in a respective frame has an associated measure of quality,

(2) each group has one or more blocks,

(3) each set of groups includes all blocks in the respective frame and no block is included in more than one group in each set, and

(4) the measure of quality represents excellence in results obtainable by processing each block in a respective group according to ~~an associated set of one or more control parameters~~ associated with the respective group;

(c) analyzing the measures of quality to identify a selected set of groups having a minimum number of groups such that a measure of processing performance obtained at least in part from the associated measure of quality is higher than a threshold; and

(d) processing each group of blocks in the selected set of groups according to the ~~associated set of one or more control parameters~~ to generate an output signal representing contents of the input signal and representing the ~~associated set of control parameters~~ for each group in the selected set.

2. (original) The method of claim 1 wherein the blocks comprise time-domain samples of audio information.

3. (original) The method of claim 1 wherein the blocks comprise frequency-domain coefficients of audio information.

4. (original) The method of claim 1 wherein at least one pair of blocks in the groups having more than one block have content representing audio information in time intervals that are adjacent to one another or overlap one another.

5. (currently amended) The method of claim 1 that comprises:

obtaining two or more measures of cost, each measure of cost affiliated with a set of groups of blocks, wherein the measure of cost represents an amount of resources needed to process the blocks in the affiliated set according to the associated ~~set of~~ control parameters; wherein the measure of processing performance is obtained in part from the measure of cost affiliated with the selected set.

6. (currently amended) The method of claim 1 ~~or 5~~ wherein the analyzing is performed in one or more iterations of an iterative process to determine one or more sets of groups that are not candidates for the selected set and excludes analyzing these one or more sets in subsequent iterations of the process.

7. (currently amended) The method of claim 1 ~~or 5~~ wherein the selected set is identified by an iterative process that comprises:

determining a second measure of processing performance for pairs of groups in an initial set of groups;

merging the pair of groups having a highest second measure of processing performance to form a revised set of groups provided that the highest second measure of processing performance is greater than a threshold, and determining the second measure of processing performance for pairs of groups in the revised set of groups; and

continuing the merging until no pair of groups in the revised set of groups has a second measure of processing performance that is greater than the threshold, wherein the revised set of groups is the selected set.

8. (currently amended) The method of claim 5 wherein the measures of cost are responsive to amounts of data needed to represent the ~~sets of~~ control parameters in the encoded signal.

9. (original) The method of claim 5 wherein the measures of cost are responsive to amounts of computational resources needed to process the blocks of audio information.

10. (currently amended) An apparatus for processing blocks of audio information arranged in frames, each block having content representing a respective time interval of audio information, wherein the method comprises:

means for receiving an input signal conveying the blocks of audio information;

means for obtaining two or more measures of quality such that:

- (1) each set in a plurality of sets of groups of the blocks in a respective frame has an associated measure of quality,
- (2) each group has one or more blocks,
- (3) each set of groups includes all blocks in the respective frame and no block is included in more than one group in each set, and
- (4) the measure of quality represents excellence in results obtainable by processing each block in a respective group according to ~~an associated set of one or more control parameters~~ associated with the respective group;

means for analyzing the measures of quality to identify a selected set of groups having a minimum number of groups such that a measure of processing performance obtained at least in part from the associated measure of quality is higher than a threshold; and

means for processing each group of blocks in the selected set of groups according to the associated ~~set of one or more control parameters~~ to generate an output signal representing contents of the input signal and representing the associated ~~set of control parameters~~ for each group in the selected set.

11. (original) The apparatus of claim 10 wherein the blocks comprise time-domain samples of audio information.

12. (original) The apparatus of claim 10 wherein the blocks comprise frequency-domain coefficients of audio information.

13. (original) The apparatus of claim 10 wherein at least one pair of blocks in the groups having more than one block have content representing audio information in time intervals that are adjacent to one another or overlap one another.

14. (currently amended) The apparatus of claim 10 that comprises:

means for obtaining two or more measures of cost, each measure of cost affiliated with a set of groups of blocks, wherein the measure of cost represents an amount of resources needed to process the blocks in the affiliated set according to the associated set of control parameters;

wherein the measure of processing performance is obtained in part from the measure of cost affiliated with the selected set.

15. (currently amended) The apparatus of claim 10-~~or 14~~ wherein the means for analyzing iteratively analyzes to determine one or more sets of groups that are not candidates for the selected set and excludes analyzing these one or more sets in subsequent iterations.

16. (currently amended) The apparatus of claim 10-~~or 14~~ wherein the means for analyzing performs its analysis by:

determining a second measure of processing performance for pairs of groups in an initial set of groups;

merging the pair of groups having a highest second measure of processing performance to form a revised set of groups provided that the highest second measure of processing performance is greater than a threshold, and determining the second measure of processing performance for pairs of groups in the revised set of groups; and

continuing the merging until no pair of groups in the revised set of groups has a second measure of processing performance that is greater than the threshold, wherein the revised set of groups is the selected set.

17. (currently amended) The apparatus of claim 14 wherein the measures of cost are responsive to amounts of data needed to represent the ~~sets of~~ control parameters in the encoded signal.

18. (original) The apparatus of claim 14 wherein the measures of cost are responsive to amounts of computational resources needed to process the blocks of audio information.

19. (currently amended) A computer-readable storage medium conveying~~recording~~ a program of instructions that is executable by a device to perform a method for processing blocks of audio information arranged in frames, each block having content representing a respective time interval of audio information, wherein the method comprises:

- (a) receiving an input signal conveying the blocks of audio information;
- (b) obtaining two or more measures of quality such that:
  - (1) each set in a plurality of sets of groups of the blocks in a respective frame has an associated measure of quality,
  - (2) each group has one or more blocks,
  - (3) each set of groups includes all blocks in the respective frame and no block is included in more than one group in each set, and
  - (4) the measure of quality represents excellence in results obtainable by processing each block in a respective group according to ~~an associated set of~~ one or more control parameters associated with the respective group;
- (c) analyzing the measures of quality to identify a selected set of groups having a minimum number of groups such that a measure of processing performance obtained at least in part from the associated measure of quality is higher than a threshold; and
- (d) processing each group of blocks in the selected set of groups according to the associated ~~set of~~ one or more control parameters to generate an output signal representing contents of the input signal and representing the associated ~~set of~~ control parameters for each group in the selected set.

20. (original) The medium of claim 19 wherein the blocks comprise time-domain samples of audio information.

21. (original) The medium of claim 19 wherein the blocks comprise frequency-domain coefficients of audio information.

22. (original) The medium of claim 19 wherein at least one pair of blocks in the groups having more than one block have content representing audio information in time intervals that are adjacent to one another or overlap one another.

23. (currently amended) The medium of claim 19 wherein the method comprises:  
obtaining two or more measures of cost, each measure of cost affiliated with a set of groups of blocks, wherein the measure of cost represents an amount of resources needed to process the blocks in the affiliated set according to the associated ~~set of~~ control parameters;  
wherein the measure of processing performance is obtained in part from the measure of cost affiliated with the selected set.

24. (currently amended) The medium of claim 19 ~~or 23~~ wherein the analyzing is performed in one or more iterations of an iterative process to determine one or more sets of groups that are not candidates for the selected set and excludes analyzing these one or more sets in subsequent iterations of the process.

25. (currently amended) The medium of claim 19 ~~or 23~~ wherein the selected set is identified by an iterative process that comprises:

determining a second measure of processing performance for pairs of groups in an initial set of groups;

merging the pair of groups having a highest second measure of processing performance to form a revised set of groups provided that the highest second measure of processing performance is greater than a threshold, and determining the second measure of processing performance for pairs of groups in the revised set of groups; and

continuing the merging until no pair of groups in the revised set of groups has a second measure of processing performance that is greater than the threshold, wherein the revised set of groups is the selected set.

26. (currently amended) The medium of claim 23 wherein the measures of cost are responsive to amounts of data needed to represent the ~~sets of~~ control parameters in the encoded signal.

27. (original) The medium of claim 23 wherein the measures of cost are responsive to amounts of computational resources needed to process the blocks of audio information.

28. (new) The method of claim 1 wherein a respective frame has a number of blocks equal to N and the analyzing of the measures of quality comprises:

- iterating a value p from 1 to N, where p is the number of groups of blocks in a frame;
- identifying for each value of p at least some of the sets of groups that have the measure of processing performance that is higher than the threshold; and
- analyzing at least some of the identified sets of groups to determine the selected set of groups that maximizes the measure of processing performance among the sets of groups that are analyzed.

29. (new) The method of claim 1 wherein each block in the respective frame comprises spectral coefficients and the measure of processing performance for a particular set of groups represents a measure of error energy between the spectral coefficients in the respective frame for the particular set of groups and the spectral coefficients in the respective frame with each block in its own group.

30. (new) The method of claim 1 wherein the measure of processing performance is responsive to a total number of bits available to represent a respective frame of blocks.

31. (new) The apparatus of claim 10 wherein a respective frame has a number of blocks equal to N and the analyzing of the measures of quality comprises:

- iterating a value p from 1 to N, where p is the number of groups of blocks in a frame;
- identifying for each value of p at least some of the sets of groups that have the measure of processing performance that is higher than the threshold; and
- analyzing at least some of the identified sets of groups to determine the selected set of groups that maximizes the measure of processing performance among the sets of groups that are analyzed.

32. (new) The apparatus of claim 10 wherein each block in the respective frame comprises spectral coefficients and the measure of processing performance for a particular set of groups represents a measure of error energy between the spectral coefficients in the respective frame for the particular set of groups and the spectral coefficients in the respective frame with each block in its own group.

33. (new) The apparatus of claim 10 wherein the measure of processing performance is responsive to a total number of bits available to represent a respective frame of blocks.

34. (new) The medium of claim 19 wherein a respective frame has a number of blocks equal to N and the analyzing of the measures of quality comprises:

iterating a value p from 1 to N, where p is the number of groups of blocks in a frame;  
identifying for each value of p at least some of the sets of groups that have the measure of processing performance that is higher than the threshold; and  
analyzing at least some of the identified sets of groups to determine the selected set of groups that maximizes the measure of processing performance among the sets of groups that are analyzed.

35. (new) The medium of claim 19 wherein each block in the respective frame comprises spectral coefficients and the measure of processing performance for a particular set of groups represents a measure of error energy between the spectral coefficients in the respective frame for the particular set of groups and the spectral coefficients in the respective frame with each block in its own group.

36. (new) The medium claim 19 wherein the measure of processing performance is responsive to a total number of bits available to represent a respective frame of blocks.